

CLAIMS

What is claimed is:

1. A peptide comprising:
at least part of the amino acid sequence of SEQ ID NO:9 wherein an original amino acid at position 2 thereof is substituted with valine and
wherein said peptide is immunogenic with lymphocytes directed against metastatic melanomas.
2. The peptide of claim 1, wherein the original amino acid at position 8, glutamine, is substituted by replacement amino acid, alanine.
3. The peptide of claim 2, wherein the original amino acid at position 2, threonine, is substituted by a replacement amino acid selected from the group consisting of isoleucine, leucine, and valine.
4. The peptide of claim 1, wherein the peptide comprises the amino acid sequence of SEQ ID NO: 1.
5. A nucleic acid which comprises a nucleotide sequence encoding the peptide of claim 1.
6. A vaccine comprising the peptide of claim 1 or a nucleotide sequence encoding said peptide.
7. The vaccine of claim 6, further comprising a pharmaceutically acceptable carrier or diluent.
8. The vaccine of claim 6, wherein an antigen presenting cell has been preloaded with the peptide.

9. A vaccine which comprises a T cell receptor against the peptide of claim 1 or cells expressing said T cell receptor.

10. The vaccine of claim 6, characterized in that it also comprises one or more compounds selected from the group consisting of an adjuvant, one or more cytokines, antibodies directed against CD2, CD3, CD27, CD28 or other T cell surface antigens and helper epitopes to stimulate CD4+ or CD8+ T cells.

11. The vaccine of claim 9, characterized in that it also comprises one or more compounds selected from the group consisting of an adjuvant, one or more cytokines, antibodies directed against CD2, CD3, CD27, CD28 or other T cell surface antigens and helper epitopes to stimulate CD4+ or CD8+ T cells

12. Tumor infiltrating lymphocytes which bind to the peptide of claim 1.

13. A vaccine comprising the tumor infiltrating lymphocytes of claim 13.

14. An antibody directed against the peptide of claim 1.

15. A composition comprising the antibody of claim 14.

16. A method for monitoring progress of immunotherapy in a subject, the method comprising:

detecting the presence of antibodies directed to the peptide of claim 1 in the serum of the subject as indicative of the progress of immunotherapy.